

CLAIMS

1. (Currently amended) A device for molding hollow parts ~~columns~~, said device comprising:

- a) an outer mold;
- b) a flexible inner mold spaced inward of said outer mold, said flexible inner mold comprising a hollow interior;
- c) a rigid core piece insertable into said hollow interior of said inner mold during a forming step of the molding process to hold the inner mold in engagement with the hollow part and to prevent the inner mold from collapsing inward during the forming step;
- d) ~~an extraction member sized to fit within~~ insertable into said hollow interior of said inner mold during an extraction step of the molding process to extract the inner mold from the hollow part after the hollow part is formed; and
- e) a vacuum source to apply a vacuum to said hollow interior of said inner mold to collapse said inner mold against a surface of said extraction member while the inner mold is extracted from the hollow part.

2. (Original) The device of claim 1, wherein a bottom edge of said extraction member has a larger surface area than a surface area of a bottom of said inner mold.

3. (Original) The device of claim 1, wherein said hollow interior of said inner mold and said extraction member are tapered along their respective lengths.

4. (Original) The device of claim 1, further comprising a top positioned across an upper surface of the inner mold and comprising a duct leading between said hollow interior and said vacuum source.

5. (Original) The device of claim 1, wherein said extraction member has arms that extend against said inner mold.

6. (Original) The device of claim 1, wherein said extraction member has a substantially diamond-shape.

7. (Original) The device of claim 1, wherein said extraction member has curved sides.

8. (Original) The device of claim 1, wherein said inner and outer molds have a rectangular shape.

9. (Original) The device of claim 1, wherein said inner and outer molds have a circular shape.

10. (Currently amended) A device for molding a hollow part member, said device comprising:

a) an outer mold having a square cross sectional shape;

b) an inner mold having a square cross sectional shape positioned within said outer mold, said inner mold comprising a hollow interior;

c) a rigid core piece insertable into said hollow interior of said inner mold during a forming step of the molding process to hold the inner mold in engagement with the hollow part during a molding step and to prevent the inner mold from collapsing inward during the molding step;

ed) ~~an extraction member removably positioned within~~ insertable into said hollow interior of said inner mold during an extraction step of the molding process to extract the inner mold from the hollow part after the hollow part is formed, said extraction member comprising a plurality of radial members extending outward from a center section into each corner of said hollow interior, said radial members forming folding regions adjacent to each side of said inner mold; and

de) a vacuum source in communication with said hollow interior to collapse said inner mold against a surface of said extraction member while the inner mold is extracted from the hollow part..

11. (Original) The device of claim 10, wherein said extraction member comprises four radial members and four folding regions.

12. (Original) The device of claim 10, wherein said extraction member has a substantially cruciform shape.

13. (Original) The device of claim 10, wherein said radial arms have rounded outer edges that contact said inner mold.

14. (Original) The device of claim 10, wherein said extraction member further comprises a top having an duct that extends between said vacuum source and said hollow interior.

15. (Original) The device of claim 10, further comprising an outer housing extending around an exterior of said outer mold, said outer housing having an indexer with a recessed section for positioning a bottom of said inner mold to align said inner mold within said outer mold.

16. (Original) The device of claim 10, wherein said extraction member has a larger ~~cross-sectional~~ surface area than said hollow interior.

17. (withdrawn) A method of molding columns comprising the steps of:

- a) molding said column between an outer mold and an inner mold, said inner mold having a flexible wall and a hollow interior;
- b) inserting an elongated extraction member into said hollow interior of said inner mold, said extraction member extending substantially the entire length of said inner mold;
- c) applying a vacuum to said hollow interior of said inner mold to collapse said inner mold against said extraction member; and
- d) withdrawing said extraction member and said inner mold from said molded column.

18. (withdrawn) The method of claim 17, further comprising tapering the hollow interior and the extraction member to ease removal of the extraction member from the hollow interior.

19. (withdrawn) The method of claim 18, further comprising lubricating the extraction member prior to insertion into the hollow interior.

20. (withdrawn) The method of claim 17, further comprising forming a bottom of the extraction member to have a larger surface area than an inner mold bottom.

21. (withdrawn) The method of claim 17, wherein the step of applying a vacuum within the hollow interior causing the flexible inner mold to conform to the extraction member comprises inserting a top across the inner mold, the top having a duct through which a vacuum source pulls air from the hollow interior.

22. (withdrawn) A method of forming a column comprising the steps of:

- a) providing a mold comprising an outer mold and a flexible inner mold, the inner mold having a hollow interior;
- b) inserting a core into the hollow interior;
- c) filling a cavity between the outer mold and the inner mold with a viscous material;
- d) allowing the viscous material to attain a gelled state;
- e) removing the core from the inner area;
- f) inserting an extraction member into the inner area, the extraction member comprising a larger cross sectional area than the inner mold;
- g) applying a vacuum within the inner area causing the flexible inner mold to conform to the extraction member; and
- h) removing the extraction member and the inner mold.

23. (New claim) The device of claim 1 wherein an inner surface of the inner mold and an outer surface of the core piece are tapered to facilitate removal of the core piece from the inner mold following the molding step.

24. (New claim) The device of claim 10 wherein an inner surface of the inner mold and an outer surface of the core piece are tapered to facilitate removal of the core piece from the inner mold following the molding step.